

## What is Claimed:

- 1 *Sub 917* 1. Body function measuring apparatus comprising:  
2 a housing;  
3 first and second identical sensors spaced apart in said housing  
4 and adapted for contact with generally the same area of skin for developing  
5 first and second body function signals, respectively; and  
6 means responsive to said first body function signal and said  
7 second body function signal for:  
8 (a) developing an indication of the body function at the skin  
9 with which said first sensor and said second sensor are in  
10 contact, and  
11 (b) detecting a difference between the rate of change of said  
12 first body function signal and the rate of change of said second  
13 body function signal which exceeds a predetermined threshold  
14 representing a difference in the proximity of said first sensor to  
15 the skin and the proximity of said second sensor to the skin.
- 1 *6x* 2. Body function measuring apparatus according to claim *5*  
2 further including means responsive to said first body function signal and said  
3 second body function signal for detecting a difference between said first body  
4 function signal and said second body function signal which exceeds a  
5 predetermined threshold representing a failure of one of said first sensor and  
6 said second sensor.
- 1 *7x* 3. Body function measuring apparatus according to claim *3*  
2 further including a flexible substrate on which said first sensor and said  
3 second sensor are mounted.

8/ 4. Body function measuring apparatus according to claim 3/ 7  
wherein said substrate has:

(a) first and second lands on which said first sensor and said second sensor, respectively, are mounted, and

(b) a neck extending between said first land and said second land and having a width narrower than the width of said first land and said second land.

Sub A2/ 5. Skin temperature measuring apparatus comprising:  
a housing;

first and second identical thermistors spaced apart in said housing and adapted for contact with generally the same area of skin for developing first and second temperature signals, respectively; and

means responsive to said first temperature signal and said second temperature signal for:

(a) developing an indication of the temperature at the skin with which said first thermistor and said second thermistor are in contact, and

(b) detecting a difference between the rate of change of said first temperature signal and the rate of change of said second temperature signal which exceeds a predetermined threshold representing a difference in the proximity of said first thermistor to the skin and the proximity of said second thermistor to the skin.

1/ 2/ 6. Skin temperature measuring apparatus according to claim 5/ further including means responsive to said first temperature signal and said second temperature signal for detecting a difference between said first

4 temperature signal and said second temperature signal which exceeds a  
5 predetermined threshold representing a failure of one of said first thermistor  
6 and said second thermistor.

1 ~~3~~ Skin temperature measuring apparatus according to claim  
2 ~~8~~ further including a flexible substrate on which said first thermistor and said  
3 second thermistor are mounted.

1 ~~3~~ ~~4~~ Skin temperature measuring apparatus according to claim  
2 ~~3~~ wherein said substrate has:

3 (a) first and second lands on which said first thermistor and  
4 said second thermistor, respectively, are mounted, and

5 (b) a neck extending between said first land and said second  
6 land and having a width narrower than the width of said first  
7 land and said second land.